Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently Amended): A process for converting an elastomer from scrap to a regenerated elastomer which comprises the steps of:

a) introducing the elastomer from scrap into a vessel;

b) agitating the elastomer from scrap;

c) heating the elastomer from scrap to a temperature below a temperature where the elastomer begins to degrade;

d) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and

e) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer,

said steps (b) and (c) being carried out simultaneously or separately and ~~said steps (c) and (d) being carried out simultaneously or separately~~, said steps (c) and (d) being carried out simultaneously, and said oil being a preheated oil which heats said elastomer from scrap.

Claim 2 (Original): A process according to claim 1, wherein the admixing of said elastomer from scrap and said oil is carried out by rotating said agitation means to generate shearing forces, whereby heating said elastomer from scrap and said oil.

Claim 3 (Original): A process according to claim 2, wherein the agitation means is rotated at a revolution comprised between 1500 and 3000 rpm.

Claim 4 (Original): A process according to claim 1, wherein steps (b) and (c) are carried out simultaneously.

Claim 5 (Canceled)

Claim 6 (Original): A process according to claim 1, wherein said elastomer from scrap is heated at a temperature t_1 comprised between 50 and 200°C.

Claim 7 (Original): A process according to claim 6, wherein said oil is preheated, prior to admixing, at a temperature t_2 being higher or equal to t_1.

Claim 8 (Original): A process according to claim 1, wherein said elastomer from scrap is heated at a temperature t_1 comprised between 160 and 190°C.

Claim 9 (Currently Amended): A process according to claim 1, wherein said oil is preheated, prior to admixing, at a temperature t_2 ~~comprised between~~ of about 100 ~~and~~ to 180°C.

Claim 10 (Original): A process according to claim 1, wherein the elastomer from scrap is in a powder form, said powder being constituted by at least 90% of particles having a size of at least 15 mesh.

Claim 11 (Original): A process according to claim 10, wherein said particles have a size of at least 30 mesh.

Claim 12 (Original): A process according to claim 1, wherein agitation in step (b) is carried out by rotating agitation means at a revolution comprised between 400 and 800 rpm.

Claim 13 (Original): A process according to claim 1, wherein said elastomer from scrap is converted to said regenerated elastomer in a period of time comprised between 30 seconds and 60 seconds.

Claim 14 (Original): A process according to claim 1, wherein said process has a weight ratio, oil/elastomer from scrap, comprised between 0.015 and 0.040.

Claim 15 (Original): A process according to claim 14, wherein said ratio is comprised between 0.0175 and 0.0350.

Claim 16 (Original): A process according to claim 1, wherein the elastomer is a rubber.

Claim 17 (Original): A process according to claim 16, wherein said rubber comprises an ethylene propylene diene monomer rubber or a styrene butadiene rubber.

Claim 18 (Original): A process according to claim 1, wherein said oil is selected from the group consisting of synthetic oil, vegetable oil and mixtures thereof.

Claim 19 (Original): A process according to claim 18, wherein said oil is a synthetic oil selected from the group consisting of aromatic oil, naphtenic oil, paraffinic oil and mixtures thereof.

Claim 20 (Currently Amended): A process for converting an elastomer from scrap to a regenerated elastomer which comprises the steps of:

a) introducing the elastomer from scrap into a vessel equipped with agitating means, said elastomer from scrap being in a powder form;

b) agitating and heating said elastomer from scrap to a temperature below a temperature where the elastomer begins to degrade;

c) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and

d) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer,

wherein said oil is preheated prior to admixing.

Claim 21. (Original): A process according to claim 20, wherein the agitation means is rotated at a revolution comprised between 150 and 1200 rpm.

Claim 22 (Original): A process according to claim 20, wherein said agitating means comprises a rotor having at least one blade mounted on a central shaft.

Claim 23 (Original): A process according to claim 20, wherein admixing of said elastomer from scrap and said oil is carried out by rotating said agitation means so as to generate shearing forces.

Claim 24 (Original): A process according to claim 23, wherein said elastomer from scrap is heated from heat generated by the agitation generating shearing forces.

Claim 25 (Original): A process according to claim 23, wherein the agitation means is rotated at a revolution comprised between 1500 and 3000 rpm.

Claim 26 (Original): A process according to claim 20, wherein said elastomer from scrap is converted to said regenerated elastomer in a period of time comprised between 30 seconds and 20 minutes.

Claim 27 (Original): A process according to claim 26, wherein said period of time is comprised between 45 seconds and 3 minutes.

Claim 28 (Original): A process according to claim 27, wherein said elastomer from scrap is heated at a temperature t_1 comprised between 50 and 200°C.

Claim 29 (Original:) A process according to claim 28, wherein said temperature t_1 is comprised between 140 and 170°C.

Claim 30 (Original): A process according to claim 20, wherein said powder has a particle size of about 15 to about 200 mesh.

Claim 31 (Original): A process according to claim 30, wherein said particle size is about 20 to about 120 mesh.

Claim 32 (Original): A process according to claim 20, wherein the powder is constituted by at least 90% of particles having a size of at least 15 mesh.

Claim 33 (Original): A process according to claim 32, wherein said particles have a size of at least 30 mesh.

Claim 34 (Original): A process according to claim 20, wherein said agitation is carried out in order to avoid having stagnant particles of said elastomer in the vessel.

Claim 35 (Original): A process according to claim 20, wherein said agitation is carried out so as to evenly heat the elastomer from scrap and therefore prevent its degradation.

Claim 36 (Original): A process according to claim 20, wherein said process has a weight ratio, oil/elastomer from scrap, comprised between 0.03 and 0.2.

Claim 37 (Original): A process according to claim 36, wherein said ratio is comprised between 0.05 and 0.09.

Claim 38 (Canceled).

Claim 39 (Original): A process according to claim 29, wherein said oil is preheated, prior to admixing, at a temperature t_2 being higher or equal to t_1.

Claim 40 (Original): A process according to claim 39, wherein the temperature t_2 has a value comprised between t_1+10 and t_1+40°C.

Claim 41 (Original): A process according to claim 20, wherein said oil is selected from the group consisting of synthetic oil, vegetable oil and mixtures thereof.

Claim 42 (Original): A process according to claim 41, wherein said oil is a synthetic oil selected from the group consisting of aromatic oil, naphtenic oil, paraffinic oil and mixtures thereof.

Claim 43 (Original): A process according to claim 20, wherein said agitation is maintained during step (c).

Claim 44 (Original): A process according to claim 20, wherein said agitation is maintained during steps (c) and (d).

Claim 45 (Original): A process according to claim 20, wherein said process further comprises after step (b) and prior to step (c):

b') stopping said agitation

and said agitation is started again in step (c), after the introduction of the oil into said vessel.

Claim 46 (Original): A process according to claim 20, wherein in step (d), the regenerated elastomer is kept in continuous motion in order to avoid degradation.

Claim 47 (Original): A process according to claim 20, wherein said process further comprises after step (c) and prior to step (d):

c') ejecting said regenerated elastomer from said vessel.

Claim 48 (Currently Amended): A process according to claim 47, wherein in step (d), said regenerated elastomer is cooled down to a temperature below 120°C[[.]] to prevent its degradation.

Claim 49 (Original): A process according to claim 20, wherein said process is carried out in the presence of air.

Claim 50 (Original): A process according to claim 20, wherein said process is carried out under an inert gas atmosphere.

Claim 51 (Original): A process according to claim 20, wherein the elastomer is a rubber.

Claim 52 (Original): A process according to claim 51, wherein said rubber is an ethylene propylene diene monomer rubber or a styrene butadiene rubber.

Claim 53 (Currently Amended): A regenerated elastomer obtained by a process as defined in claim 1 ~~for converting an elastomer from scrap to said regenerated elastomer, said process comprises the steps of:~~

~~a) introducing the elastomer from scrap into a vessel;~~

~~b) agitating the elastomer from scrap;~~

~~c) heating said elastomer from scrap to a temperature below a temperature where the elastomer begins to degrade;~~

~~d) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and~~

~~e) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer,~~

~~said steps (b) and (c) being carried out simultaneously or separately and said steps (c) and (d) being carried out simultaneously or separately~~.

Claim 54 (Original): A regenerated elastomer according to claim 53, wherein said regenerated elastomer is in a powder form.

Claim 55 (Original): A regenerated elastomer according to claim 54, wherein said regenerated elastomer comprises a quantity of said oil comprised between 0.5 and 15% by weight, the oil being encapsulated into said powder.

Claim 56 (Original): A regenerated elastomer according to claim 55, wherein the quantity of said oil is comprised between 1 and 4% by weight.

Claims 57 (Original): A regenerated elastomer according to claim 53, wherein the elastomer is a rubber.

Claims 58 (Original): A process according to claim 57, wherein said rubber comprises an ethylene propylene diene monomer rubber or a styrene butadiene rubber.

Claims 59 (Original): A regenerated elastomer according to claim 53, wherein said regenerated elastomer is non-sticky and does not soil hands by touch.

Claims 60 (Original): A regenerated elastomer according to claim 53, wherein said regenerated elastomer exhibits all the required characteristics needed for processing by using the methods of mixing, molding, extrusion or calendering, commonly used in the rubber industry.

Claims 61 (Currently Amended): A regenerated elastomer obtained by a process as defined in claim 20 ~~for converting an elastomer from scrap to said regenerated elastomer, said process comprises the steps of:~~

~~a) introducing the elastomer from scrap into a vessel equipped with agitating means, said elastomer from scrap being in a powder form;~~

~~b) agitating and heating said elastomer from scrap to a temperature below a temperature whereat the elastomer begins to degrade;~~

~~c) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and~~

~~d) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer~~.

Claim 62 (Original): A regenerated elastomer according to claim 61, wherein said regenerated elastomer has an aspect of expanded powder.

Claim 63 (Original): A regenerated elastomer according to claim 61, wherein said regenerated elastomer comprises a quantity of said oil

comprised between 3 and 14% by weight, the oil being encapsulated into said powder.

Claim 64 (Original): A regenerated elastomer according to claim 63, wherein the quantity of said oil is comprised between 5 and 8% by weight.

Claim 65 (Original): A regenerated elastomer according to claim 61, wherein said regenerated elastomer is an unmasticated elastomer.

Claim 66 (Original): A regenerated elastomer according to 61, wherein said regenerated elastomer exhibits all the required characteristics needed for processing by using the methods of mixing, molding, extrusion or calendering, commonly used in the rubber industry.

Claim 67 (Original): A regenerated elastomer according to claim 61, wherein the elastomer is a rubber.

Claim 68 (Original): A regenerated elastomer according to claim 66, wherein said rubber comprises an ethylene propylene diene monomer rubber or a styrene butadiene rubber.

Claim 69 (Original): A rubber hose, gasket or seal comprising the regenerated rubber of claim 57.

Claim 70 (Original): Rubber products used in the automobile or the snowmobile industry, said products comprising the regenerated rubber of claim 57.

Claim 71 (Original): A snowmobile track comprising the regenerated rubber of claim 57.

Claim 72 (New): A process for converting an elastomer from scrap to a regenerated elastomer which comprises the steps of:

a) introducing the elastomer from scrap into a vessel;

b) agitating the elastomer from scrap;

c) heating the elastomer from scrap to a temperature below a temperature where the elastomer begins to degrade;

d) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and

e) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer,

said steps (b) and (c) being carried out simultaneously or separately and said steps (c) and (d) being carried out simultaneously or separately,

wherein said elastomer from scrap is heated at a temperature t_1 comprised between 50 and 200°C, and wherein said oil is preheated, prior to admixing, at a temperature t_2 being higher or equal to t_1.

Claim 73 (New): A process for converting an elastomer from scrap to a regenerated elastomer which comprises the steps of:

a) introducing the elastomer from scrap into a vessel;

b) agitating the elastomer from scrap;

c) heating the elastomer from scrap to a temperature below a temperature where the elastomer begins to degrade;

d) introducing an oil into said vessel and admixing together the elastomer from scrap and the oil; and

e) cooling down the so formed regenerated elastomer, whereby the regenerated elastomer has properties similar to a corresponding virgin elastomer,

wherein said oil is preheated, prior to admixing, at a temperature t_2 of about 100 to about 180°C.